

Image-orthicon television camera tube using a semitransparent photocathode, magnetic focusing and deflection, and electron-multiplier output. It converts an optical image into a scanned electrical television signal.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	— / —	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Camera Pickup

No fixed ratings recorded.

Source-derived section; promoted values populated where applicable.

from RMA #825 Feb. 1, 1950 2P2| IMAGE ORTHICON DATA General: Heater, for Unipotential Cathode: vVoltage (AC or OC). . . . « . . Current . . .« . . + + v ¢ o & 4 . . Direct Interelectrode Capacitance: Anode to All Other Electrodes . . . , e Photocathode, Semi-transparent: Response. . . . « « + ¢« « « o« « . « « « . See Fig.| Useful Size of Rectangular Image (4 aspect ratio) . |.6" Diagonal Focusing Method x . . e e e Magnetic Deflection Method e e Magnetic Overall! Length. + . + & o . N 15-1/74% £ j72V Greatest Diameter of Bulb e vt i/ 18" Shoulder Base « v 4« « . s+ + + « « Jumbo Annular 7-Pin End Base.« « 4 Small-Shell Diheptal I|4-Pin Deflecting-Coil Length. » .. RN e . 5n FocusingCoil Length. T oA Alignment-Coil length . , . e e e e ..

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1940 RCA

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1940 RCA

Section 1 · CameraPickup

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PHOTOCATHODE VOLTAGE. . « ¢« « + « « &	450 V	PHOTOCATHODE VOLTAGE. . « ¢« « + « « & 450 max. volts
GRID-No	450 V	GRID-No.6 (ACCELERATOR) VOLTAGE . . . 450 max. volts
OVERALL MULTIPLIER VOLTAGE®	1650 V	OVERALL MULTIPLIER VOLTAGE® 1650 max. volts
MULTIPLIER VOLTAGE PER STAGE	350 V	MULTIPLIER VOLTAGE PER STAGE. 350 max. volts
Negative bias value	100 V	Negative bias value - 100 max. volts
Positive bias vature	0 V	Positive bias vature 0 max. volts
Photocathode Voltage (Image Focus)**	-300 V	Photocathode Voltage (Image Focus)**. -300 volts
Grid-No	6	Grid-No.6 Voltage (Accelerator)—
80% of photocathode voltage® ~240 volts	240 V	80% of photocathode voltage® ~240 volts
Grid-No	25 V	Grid-No.5 Voltage (Deceleratori# + ¢« . . 25 volts
Grid-No	125 V	Grid-No.4 Voltage (Beam Focus)## « « « « « . 125 volts
Grid=No	210 V	Grid=No.3 Voltageo. et e e e s e e e e e e e e e e 210 volts
Grid-No	210 V	Grid-No.2 & Dynode-No. Voltage 210 volts
Grid-No. Voltage (For Picture Cutoff)?	45 V	Grid-No. Voltage (For Picture Cutoff)?9, ... ~45 volts
Dynode~No	525 V	Dynode~No.2 Voltage . . . « + « « ¢ o ¢ o o o v 0 0 . 525 volts

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Dynode-No	850 V	Dynode-No.3 voltage « « v o o 0. e 850 volts
Dynode-No	1150 V	Dynode-No.4 Voltage <« . « ¢« o v ¢ ¢« o o s e 1150 volts
Dynode-~No	1450 V	Dynode-~No.5 Voltage « « « o « o o <« 4 1450 volts
Anode Voltage o v &	1500 V	Anode Voltage o v & 0 o i v e t e e e e 0 e e 1500 volts
Target Operating Temperature. e e e e e e e	4	Target Operating Temperature. e e e e e e 35 to 4b °c
For best operation, this voltage should be adjustable within +	25	For best operation, this voltage should be adjustable within + 25%of indicated value,
Adjustable within &	3 V	Adjustable within & 3 volts of indicated value, with blanking voltage off,
For best operation, thisvoltage should beadgustgble within	100	For best operation, thisvoltage should beadgustgble within 2 100% of indicated value.
oo Adjustable over range from	70 V	oo Adjustable over range from -5 to ~70 volts.